<u>REMARKS</u>

Claims 1-15 are currently active.

The Examiner has rejected Claims 1-15 as being unpatentable over Anello in view of Frantz. Applicants respectfully traverse this rejection.

Referring to Anello, there is disclosed a switcher for spanning sub networks. Anello teaches a set of stations A1 . . . AN are coupled to a IP subnet A, and a set of stations B1 . . . BN are coupled to a similar subnet B. Each station of a subnet A, B is physically and logically connected to a spanning switch 10 but is logically disconnected from stations on the other subnet B, A. Anello teaches for an ordinary switch using layer 2 addressing, this configuration means that traffic cannot be forwarded between the subnets A, B as is required for proper operation of the Internet protocol. Normally, in order for station A1 to communicate with station B1, a router instead of a switch would be required to route data packets using layer 3 addresses.

Anello teaches that by using his invention the virtual IP address on one subnet is defined and can be used by a designated station on the subnet to send data to a designated station on another subnet. See column 4, lines 16-38.

In operation, Anello teaches that when station A1 on subnet A wants to send a data packet to station B1 and subnet B, station A1 looks up the IP address for station B1 in an internal table. Because station A1 was told by the spanning switch 10 that the Internet protocol address of station B1 was an address of subnet A, station A, will retrieve the address for station B1 from the lookup table. Station A1 uses the addresses as a station address for a standard address resolution for all command packet broadcast on subnet A to determine the address corresponding to the virtual IP address. The spanning switch 10 receives the broadcast command packet. Since the spanning switch 10 is aware that it is controlling the virtual IP address in question, the spanning switch 10 looks up that IP address in an internal IP/MAC table and retrieves the corresponding MAC address of the actual destination, station B1, previously associated with the receive virtual IP address. The spanning switch 10 then broadcasts back on subnet A the reply packet with the MAC address of station B1. Thereafter, station A1 sends data packets addressed to station B1 using the MAC address of station B1 of the MAC destination address in the layer 2 frame header. The spanning switch 10 now can treat such data packets at the layer 2 level and for the data packets from the station A1 on subnet A to station B1 on subnet B. In particular, the spanning switch 10 switches each data packet with a destination address of MAC to a corresponding port, as determined by the MAC/PORT table of the spanning switch 10. See column 5, lines 28-60. As the Examiner recognizes, Anello fails to teach the use of a virtual network identifier value, wherein said virtual network identifier value is stored in a field within the header of said request message

separate from said virtual address, and said virtual network identifier value is associated with a virtual network. Furthermore, Anello fails to teach or suggest translating IP addresses associated with the first virtual network to Ethernet/MAC addresses associated with the second virtual network with an address resolution table generated and maintained by the first virtual network device.

Referring to Frantz, there is disclosed a VLAN frame format. Frantz teaches a method and frame format for preserving in a data frame the virtual local area network associated with the data frame when transmitting the data frame over a communications medium shared among all multiple virtual local area networks. See column 7, lines 6-10. The frame format extends the Ethernet frame format illustrated in figure 5a to accommodate a virtual local area network header 514. In addition, a virtual type field 513 replaces the field 503 when the data frame is transferred from a shared communications medium used to transmit data frames for multiple virtual local area networks to a dedicated communications medium used to transfer data frames for a single virtual local area network. Frantz further teaches that the value in the field 503 of figure 5a or the length field of an IEEE 802-based data frame, is not discarded. Rather, it is preserved at location 520 within the virtual local area network header 514 to be inserted back at location 503 when the data frame is transferred from a shared communication medium used to transmit data frames for multiple virtual local area networks to a dedicated communication medium used to transmit data frames for a single

virtual local area network. See column 8, lines 12-30. As is also apparent from the above description, Frantz does not teach or suggest translating IP addresses associated with the first virtual network to Ethernet/MAC addresses associated with the second virtual network with an address resolution table generated and maintained by the first virtual network device. Thus, the applied art of record fails to teach or suggest translating IP addresses associated with the first virtual network to Ethernet/MAC addresses associated with the second virtual network with an address resolution table generated and maintained by the first virtual network device.

From the above descriptions of the applied art of record, it is clear to see that these two references essentially have nothing and all to do with each other. The only reason these two references were cited was that the two references together have all the elements of Claim 1 of applicants. Patent law requires there must be some teaching in the references themselves to combine the teachings the Examiner is relying upon in each reference to arrive at applicants' claimed invention. Here, there is no such teaching. It is respectfully submitted that the Examiner is using the hindsight from applicants' claim to combine the teachings of the references to arrive at applicants' claim. The Examiner is using the limitations of applicants' Claim 1 as a road map to find the limitations in the different references, and having found them, concludes that applicants' Claim 1 is arrived at. This is not patent law.

Furthermore, when teachings are combined from different references, the teachings cannot be taken out of the context in which they are found. Here, Anello has the context to be able for one subnet to send data to a designated station on another subset, where before hand, such a configuration would mean that traffic cannot be forwarded between the subnets. See paragraph column 4, lines 23-26 and 30-32 of Anello. In regard to Frantz, the context has nothing at all to do with that of Anello, but instead is focused on the ability to preserve in a data frame the virtual local area network associated with the data frame when transmitting the data frame over a communications meeting shared among multiple virtual local area networks. See column 7, lines 5-10. Furthermore, as explained above, the value in the field 503 is not discarded, but rather is preserved at a location 520 within the virtual local area network header 514 to be inserted back at location 503 when the data frame is transferred from a shared communications medium used to transmit data frames from multiple virtual local area networks to a dedicated communications medium used to transmit data frames for single virtual local area network. This context cannot be ignored. The teachings of Anello do not require a dedicated communications medium to which data frames are transmitted, and specifically do not require any type of virtual network identifier because quite simply, there is absolutely no purpose for a virtual network identifier. Again, it is respectfully submitted the Examiner has simply found a reference that teaches a virtual network identifier and then simply says since it is found, it is obvious to apply it to the context of Anello. Accordingly, there is no reason why one skilled in the art would feel the need to modify the teachings of
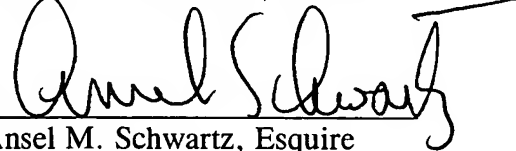
Anello to require a virtual network identifier value so the subnet A can communicate with subnet B, because there is no need for such a value to accomplish the same already taught by Anello.

Applicants are not saying that they discovered a virtual network identifier value, but they are saying that they are the first to have used a virtual network identifier value with the limitations of the claimed invention. Consequently, Claims 1-15 are patentable over the applied art of record.

In view of the foregoing amendments and remarks, it is respectfully requested that the outstanding rejections and objections to this application be reconsidered and withdrawn, and Claims 1-15, now in this application be allowed.

Respectfully submitted,

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